APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,680	04/20/2001	Robin Speed	MS1-0600US	1810

22801   7590   09/17/2008
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EXAMINER
CZEKAJ, DAVID J

ART UNIT	PAPER NUMBER
2621	

MAIL DATE	DELIVERY MODE
09/17/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	09/839,680	SPEED ET AL.
	Examiner	Art Unit	
	DAVID CZEKAJ	2621	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>02 June 2008</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-5,7-10 and 12-20</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-5,7-10 and 12-20</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some * c) ☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
          application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>9/3/08, 3/19/08</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-5, 7-10, and 12-20 have been

considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

1.   Claims 1-5, 7-10, 12-14, and 16-19 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Radha et al. (6639943), (hereinafter referred to as "Radha") in view

of Rose (6731811) in further view of Takashima (5754233) in further view of Keith et al.

(5592399), (hereinafter referred to as "Keith") in further view of Owen et al. (6058459),

(hereinafter referred to as "Owen").

        Regarding claims 1, 8, 9, 10, and 19, Radha discloses an apparatus that

relates to fine granular coding that includes both quality and temporal scalability

(Radha: column 1, lines 11-13). This apparatus comprises "generating a motion

compensated prediction of a region of content" (Radha: figure 7, column 7, lines

49-51, wherein the motion compensated prediction is generated by the motion

estimation block, the region of content is the frames/streams), "receiving an

indication of whether there are first and second quantities of residual samples

remaining" (Radha: figures 5A and 8A, wherein the residual samples are

contained with the enhancement and base layers, the indication is the process from moving from one layer to the next. The examiner notes that the apparatus would not move from one layer to the next without all necessary data needed for further processing. Therefore a move from one layer to the next would indicate whether there are first and second quantities of residual samples) and "adding the first quantity of residual samples to the prediction" (Radha: figure 7, column 3, lines 15-27). However, Radha fails to show the subtraction and the indication comprising values associated with picture level parameters as claimed. Rose teaches that prior art coding systems cause undesired conflicts when trying to take advantage of additional information available to the enhancement layer (Rose: column 2, lines 10-14). To help alleviate this problem, Rose discloses "subtracting the second quantity of residual samples from the refined prediction value to generate a final representation" (Rose: figure 5, wherein the second set of residual samples is the multiple enhancement layers). Takashima teaches that bit rate control operations become complex in prior art encoding systems (Takashima: column 3, lines 10-14). To help alleviate this problem, Takashima discloses an indicator "comprising one or more values associated with picture level parameters" (Takashima: figure 8, column 2, lines 57-64, wherein the picture level parameters is the picture type). Keith teaches that operations, such as motion estimation, are too complex to be performed by software (Keith: column 1, lines 30-40). To help alleviate this problem, Keith discloses "sending any prediction control information for generation of a motion compensation region

to an accelerator and sending an indication to the accelerator of whether the
quantities of residual samples are to be applied" (Keith: column 31, lines 27-32;
column 5, lines 35-67; column 6, lines 24-30, wherein the indication is the
selection/enabling of the loop filter). Owen teaches using a multimedia
application program interface which automatically identifies and adapts to a
processing system (Owen: figure 7, wherein the interface is the PCI/AGP bus
interface which adapts the accelerator with the encoder/decoder). Therefore, it
would have been obvious to one having ordinary skill in the art at the time the
invention was made to take the apparatus disclosed by Radha, add the
subtraction method taught by Rose, add the processing taught by Takashima,
and add the accelerator and interface taught by Keith and Owen in order to
obtain an apparatus that operates more efficiently by being able to take
advantage of additional information given to a system without causing undesired
conflicts/complexity.

Regarding claims 2 and 13, Radha discloses "the first and second residual
samples are eight bit samples" (Radha: column 5, lines 37-45, wherein the pixel
represents one byte or eight bits).

Regarding claims 3, 14, and 17, Radha discloses "performing an inverse
discrete cosine transform of decoded transform domain representation of
residual differences to be added to the motion compensated prediction" (Radha:
figure 10, wherein the inverse discrete cosine transform is the inverse DCT, the

addition is performed by the adder (item 58), and the motion compensated

prediction is performed by the motion compensation block).

Regarding claims 4, 7, 12, and 18, Takashima discloses "the region is a

block or macroblock" (Takashima: column 7, lines 30-39).

Regarding claims 5 and 16, Radha discloses "generating a prediction of

media is performed by a graphics accelerator under the control of a decoder

application" (Radha: figure 10, wherein the accelerator comprises the motion

compensation and inverse DCT blocks).

2.   Claims 15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Radha et al. (6639943), (hereinafter referred to as "Radha") in view of Rose

(6731811) in further view of Takashima (5754233) in further view of Keith et al.

(5592399), (hereinafter referred to as "Keith") in further view of Owen et al. (6058459),

(hereinafter referred to as "Owen") in further view of Sriram et al. (6539059),

(hereinafter referred to as "Sriram").

Regarding claims 15 and 20, note the examiners rejection for claim 1, and

in addition, Radha discloses the complementary decoder performing the

operations of the encoder disclosed in the preceding claims. The decoder also

comprises an "application program interface" (Radha: column 9, lines 57-59,

wherein the interface is the application that runs to obtain the user input).

Further, claims 15 and 20 require selecting an auto-negotiation structure. Sriram

teaches that there is a need for an efficiently scalable decoder which facilitates

efficiency, synchronization, flexibility and functionality (Sriram: column 2, lines

59-64). To help alleviate this need, Sriram discloses "an autonegotiation structure" (column 5 line 58- column 6, line 30, wherein the structure is the argument passing). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the autonegotiation structure taught by Sriram in order to be able to correctly and effectively facilitate the use between multiple processors of a system.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID CZEKAJ whose telephone number is (571)272-7327. The examiner can normally be reached on Mon-Thurs and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dave Czekaj/
Primary Examiner, Art Unit 2621